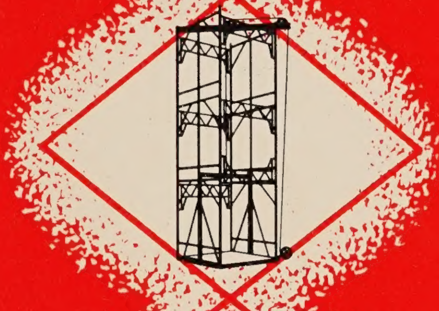
BEAVER
ADVANCE

A.I.A 36-E

TUBULAR STEEL SCAFFOLD



MATERIALS HOISTING TOWERS

STRUCTURAL CONCRETE SHORING

OTHER BUILDING CONSTRUCTION AND MAINTENANCE EQUIPMENT

BEAVER-ADVANCE CORPORATION

Ellwood City, Pennsylvania

MANUFACTURE

BEAVER ADVANCE

In recent years, tubular steel scaffold has become standard equipment for most every type of construction and maintenance job . . . residential, commercial and industrial buildings . . . bridges, dams, reservoirs . . . shipbuilding and repair . . . painting, roofing and general building maintenance. As a matter of fact, there's no application too large or too small for tubular scaffold. It's safer, more practical and lasts far longer than inefficient, makeshift scaffolding arrangements, which have been proved to be economically unsound, and are rapidly becoming a thing of the past.

The purpose of this catalog is to fully describe the application of BEAVER-ADVANCE products, with emphasis on ADVANCE tubular steel scaffold, which comprises the bulk of our present product line.

All components of ADVANCE Scaffold . . . panels, braces, locking devices and accessories have been engineered to exacting specifications, and every step in the process of manufacture withstands the most rigid supervision. Constant testing assures ADVANCE Scaffold performance standards far in excess of those demanded by federal, state and local building codes.

ADVANCE Scaffold is fabricated from heavy gauge tubular steel with locking devices precision-welded to the panels and braces thus becoming an integral part of the scaffold. This feature affords faster scaffold erection—**without tools** . . . a safer, more rigid structure . . . easier dismantling and—it eliminates the expense of lost parts.

The ADVANCE panel assortment consists of a wide variety of load-bearing units, ranging from 2′ to 10′ in height. Braces are available for spans from 5′ to 10′. Accessories include: putlogs, trestles, adjustable post shores, tube and clamp scaffold, ladders, adjustable legs and bases, casters, masonry, plastering and shoring jacks, extension brackets, hoists, foot plates, etc. ADVANCE Scaffold distributors have complete specification data sheets covering the entire line.

Completeness of the ADVANCE line makes it ideal for a wide range of jobs—from the large project requiring thousands of panels and accessories to the small job that calls for but a single rolling tower. Even the most unusual job requirement in stationary or rolling scaffold can be made from standard stock items or, when necessary, our engineers will design a scaffold component to individual needs. Component parts are interchangeable for conventional or stationary scaffold, rolling towers and maintenance stands.

Through its nation-wide network of distributors and field representatives, BEAVER-ADVANCE affords technical services that are second to none in the industry. Engineering service, including scaffold erection plans for masonry work, shoring or any construction and maintenance job, is available to owners or prospective users of ADVANCE Scaffold, without cost or obligation.

ENGINEERING

PERFORMANCE TESTS

PRODUCT DESIGN

FIELD SERVICE

Modern Scaffold Features

An *ADVANCE* Exclusive

When it comes to scaffold, first cost isn't everything; What really counts is:

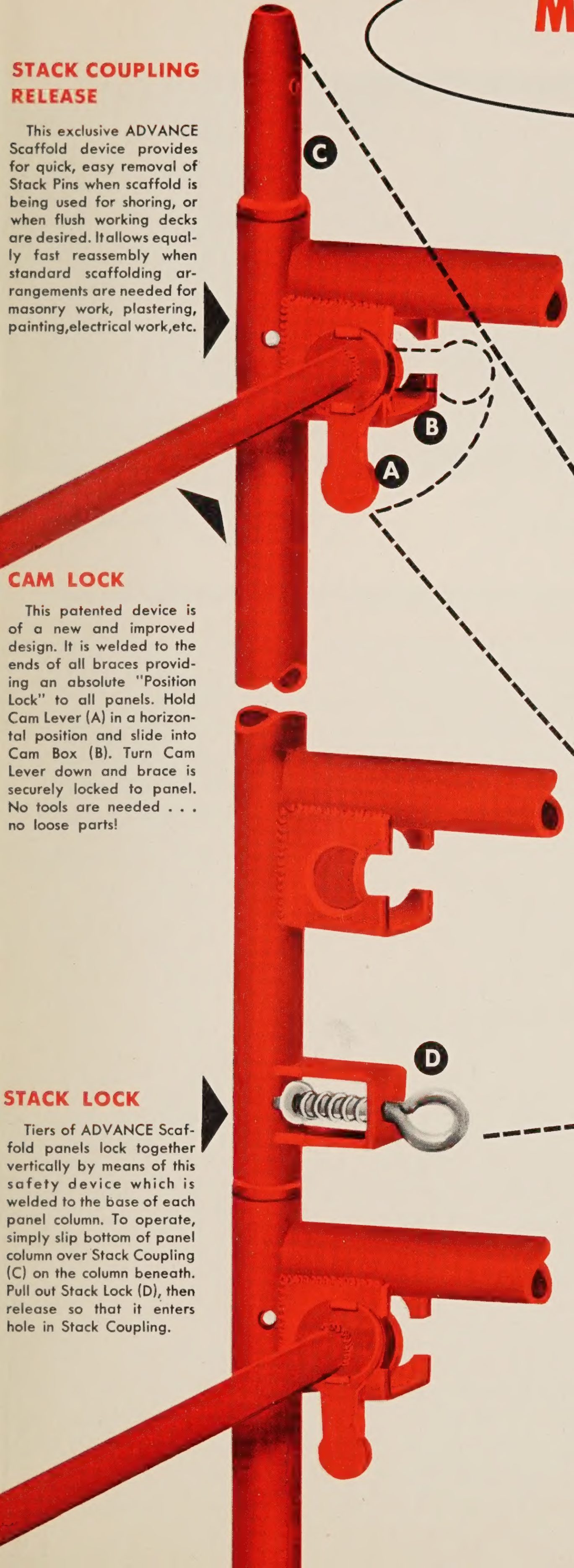
how well it's made
how fast and easy it assembles
how safe it stands
how long it lasts

These four points can well mean the difference between profit and loss on any scaffold job. They are four points in which ADVANCE Scaffold knows no equal.

The accompanying illustration shows the **exclusive** locking features of ADVANCE Scaffold. Cam Locks and Stack Locks are an integral part of all panels and braces. Deficiencies of costly time-consuming nut, bolt and clamp methods of scaffold assembly have been entirely eliminated.

BEAVER-ADVANCE engineers have carefully designed every component of ADVANCE Scaffold with but one thought in mind . . . SAFETY . . . SPEED . . . on-the-job SAVINGS.

Highest standards of workmanship—use of the very finest in component materials—rigid testing and inspection—simple yet durable construction . . . all are assurance of complete user-satisfaction for every application.



STACK COUPLING RELEASE

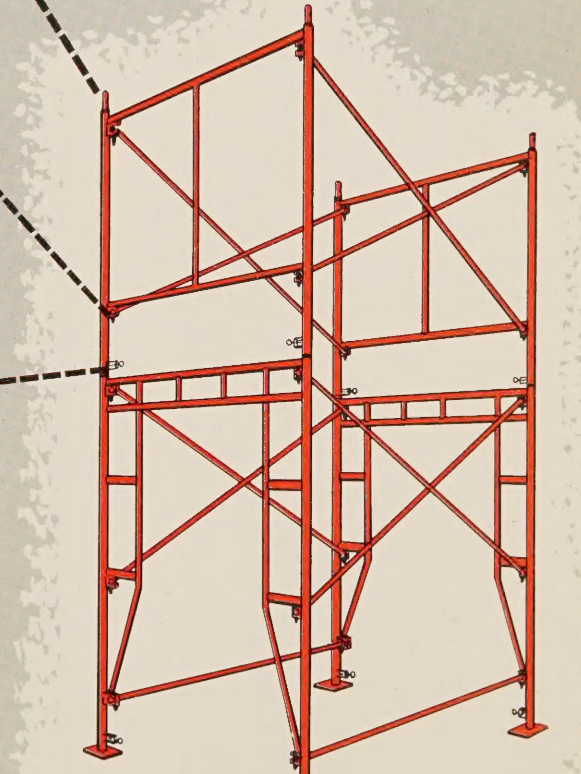
This exclusive ADVANCE Scaffold device provides for quick, easy removal of Stack Pins when scaffold is being used for shoring, or when flush working decks are desired. It allows equally fast reassembly when standard scaffolding arrangements are needed for masonry work, plastering, painting, electrical work, etc.

CAM LOCK

This patented device is of a new and improved design. It is welded to the ends of all braces providing an absolute "Position Lock" to all panels. Hold Cam Lever (A) in a horizontal position and slide into Cam Box (B). Turn Cam Lever down and brace is securely locked to panel. No tools are needed . . . no loose parts!

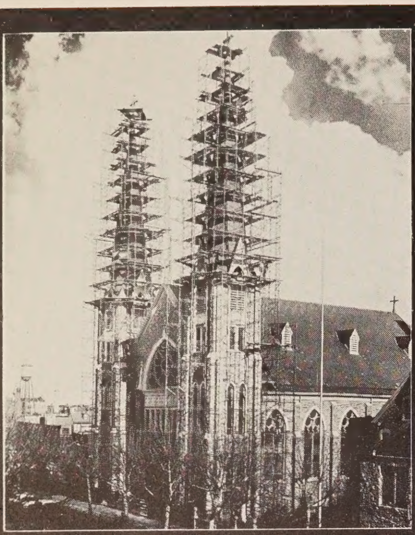
STACK LOCK

Tiers of ADVANCE Scaffold panels lock together vertically by means of this safety device which is welded to the base of each panel column. To operate, simply slip bottom of panel column over Stack Coupling (C) on the column beneath. Pull out Stack Lock (D), then release so that it enters hole in Stack Coupling.

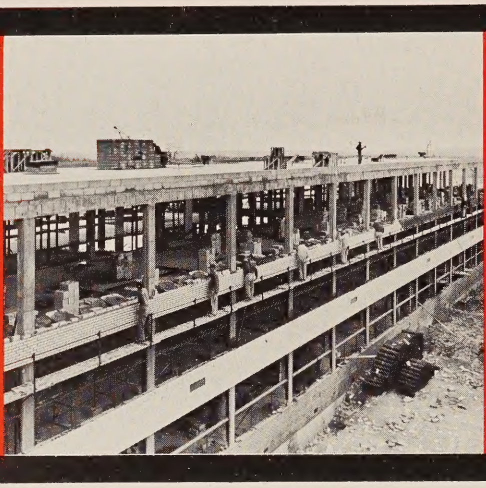


BEAVER ADVANCE

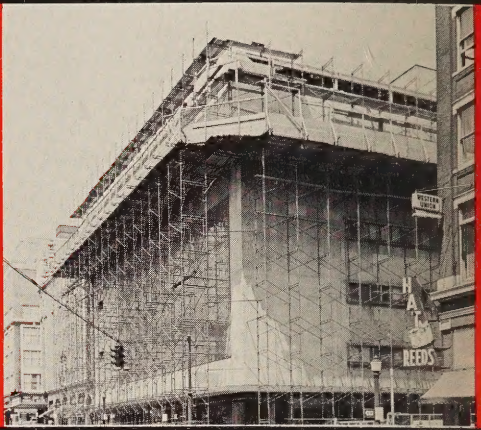
. . . . MASONRY AND



Sky-High with ADVANCE Scaffold being used for church steeple repair, Philadelphia, Pa.

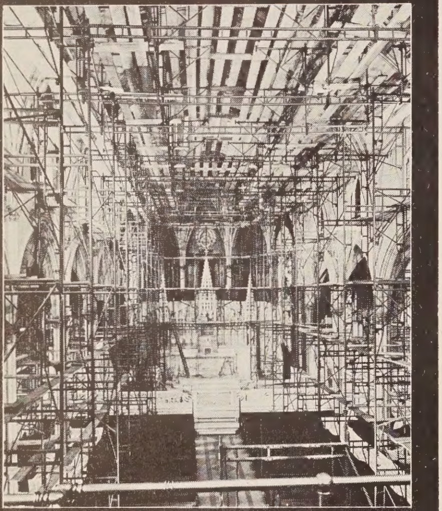


Masons work from 4′ ADVANCE Extension Brackets attached to scaffold set inside building; location, Washington, D. C.

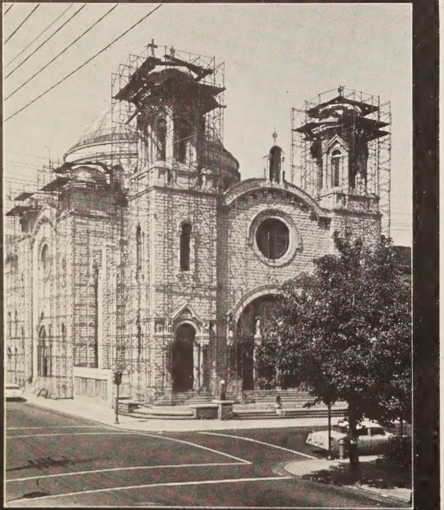


More than 2000 ADVANCE Scaffold panels were in use at one time on this extensive remodeling and building construction job at Richmond, Va.

Standard ADVANCE Scaffold panels, braces, putlogs and brackets afford safe working platform for redecoration of church interior.



This web work of ADVANCE Scaffold was used for repointing stone and retiling roof of Lansdowne, Pa. church.

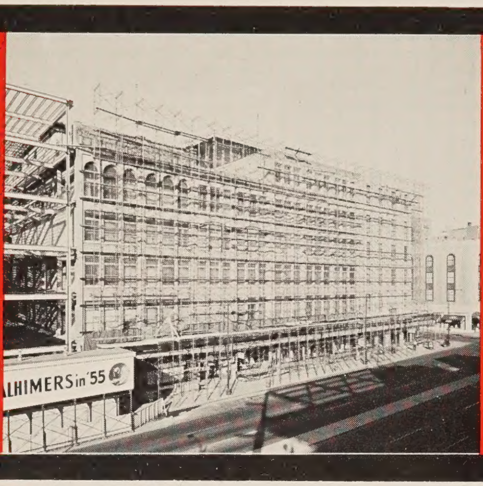


Space would hardly permit our illustrating all of the common uses for ADVANCE Scaffold in building construction, maintenance and repair work. We have therefore selected photographs which will most clearly show the effective use of ADVANCE Scaffold for masonry work, painting, roofing, plastering, and building maintenance.

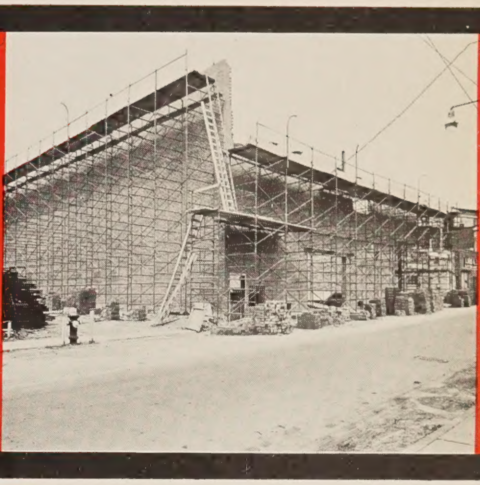
It should be emphasized that the component parts of all ADVANCE Scaffold are completely interchangeable for conventional or stationary scaffolding, rolling towers and maintenance stands. Thus, the same scaffold being used on a masonry job today can be efficiently used on a plastering job tomorrow or a painting and renovation job next week.

OTHER GENERAL USE

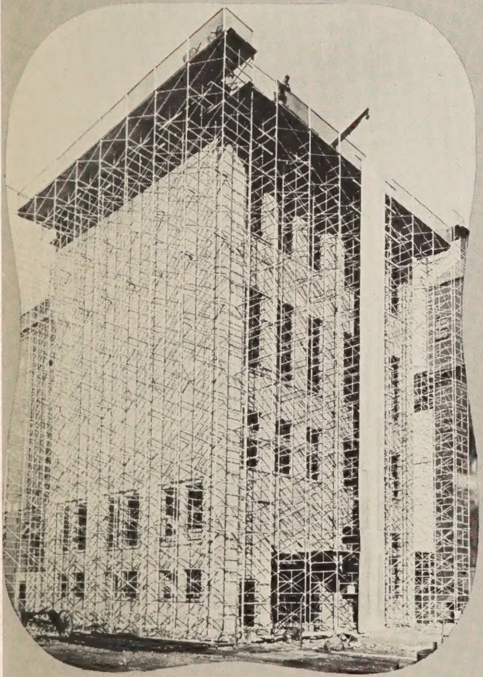
Application of ADVANCE running scaffold for plastering job, Western Pennsylvania lodge hall.

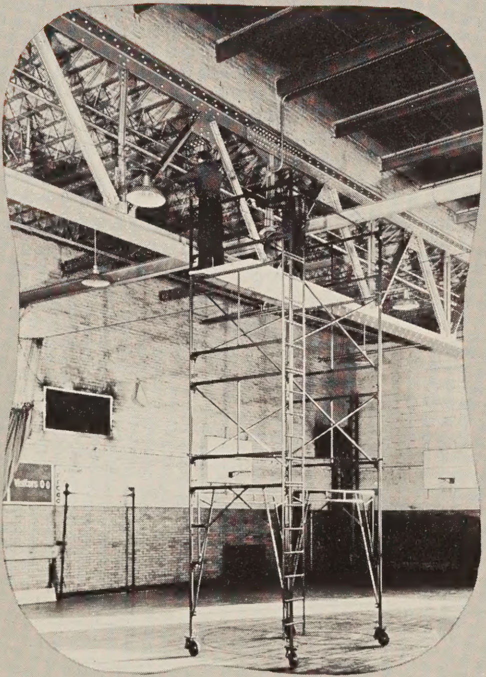


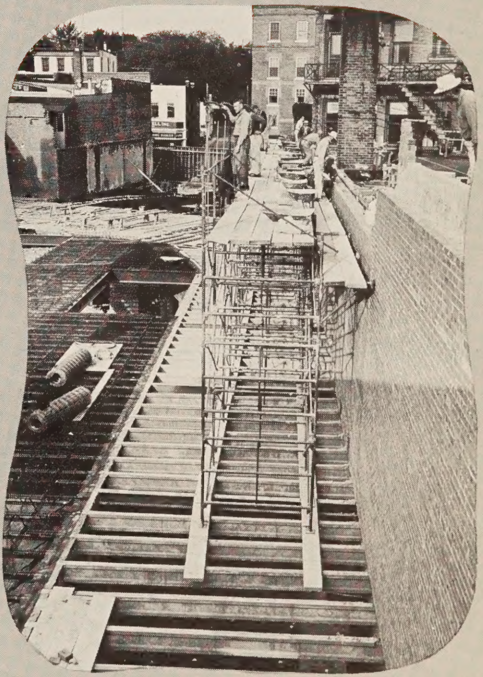
ADVANCE 6½′ panels provide safe staging for workers installing aluminum siding to this Southeastern U. S. department store.



Standard use of ADVANCE Scaffold for masonry work on Upper New York State mercantile building.







Through maintenance of quality, honest value and reliable distributor and field representative service, more and more users of scaffold are being attracted to the ADVANCE line.

Consistently, "the man who's using them" is the best salesman for BEAVER-ADVANCE products!

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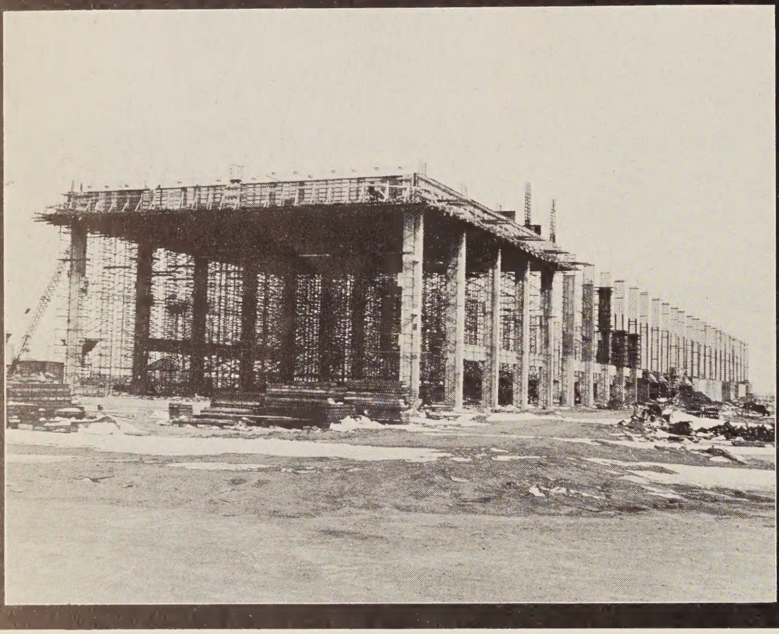
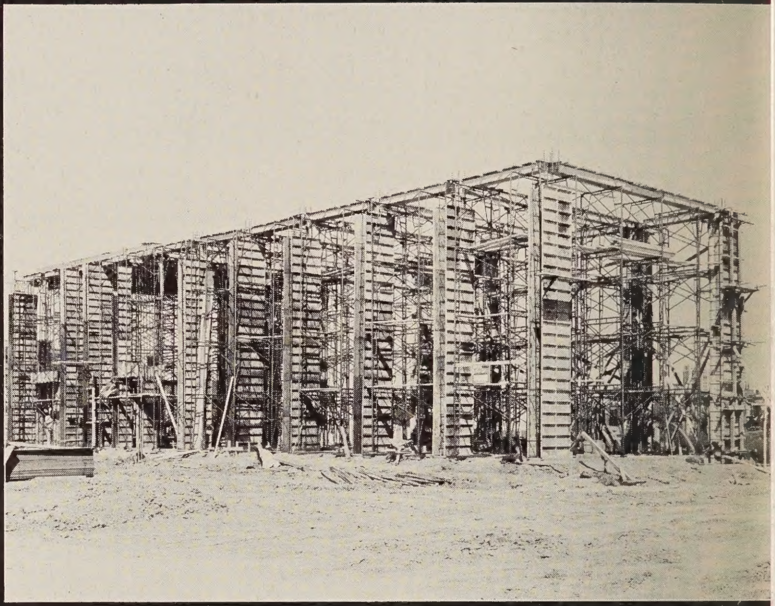
ADVANCE SHORING

BEAVER-ADVANCE is the proved leader in the engineering of scaffold for use in shoring of structural concrete slabs. The ADVANCE shoring system utilizes standard scaffold panels and braces plus shoring jacks, jack heads and roller assemblies.

This revolutionary shoring method assures savings of up to 50% on every job by comparison with conventional wood or steel shoring systems.

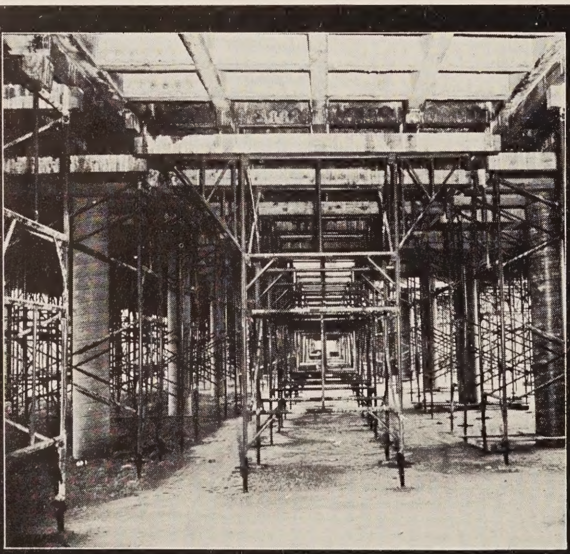


ADVANCE scaffold shores T.W.A. Hangar at Kansas City, Mo. View shows scaffold and form work in place under 100′ x 126′ area. All shoring and form work for this area was moved intact in one unit.

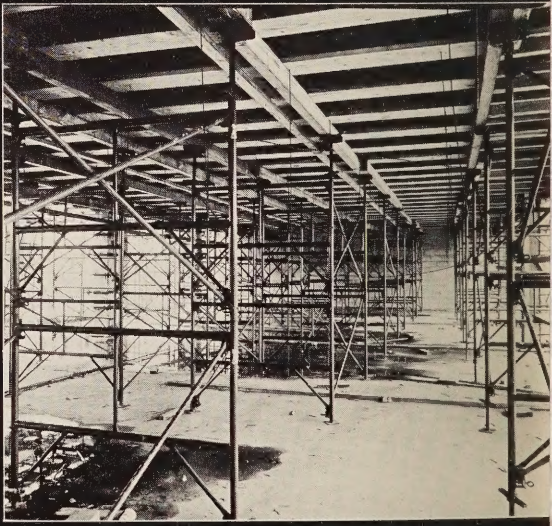


ADVANCE shoring of concrete slabs and beams, War Memorial Building, Richmond, Va.

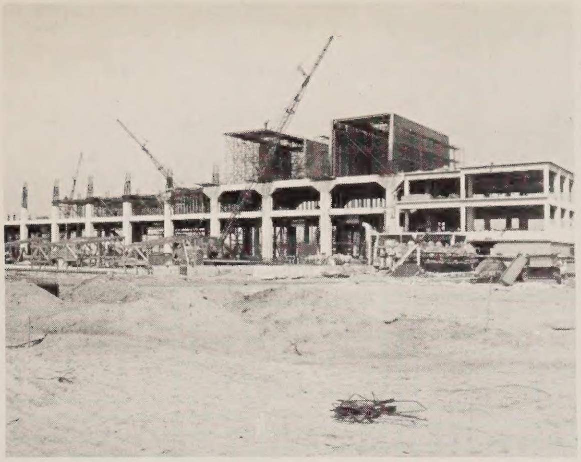
BEAVER-ADVANCE engineering know-how spells the difference. View the typical shoring applications as shown on these pages—then read the reasons for these tremendous savings at the bottom of Page 7.



End view of ADVANCE shoring grid. Towers comprise standard 5′ scaffold panels, extension brackets, shoring jacks and jack heads. Job site is warehouse building, St. Louis, Mo.

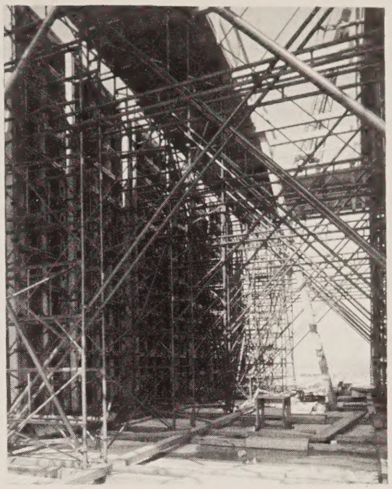


ADVANCE shoring panels in use on construction of school building, Lyons, Ill.



Overall view showing ADVANCE SHORING for first and second floors of hangar as well as work platforms and form supports for walls on top of the building.

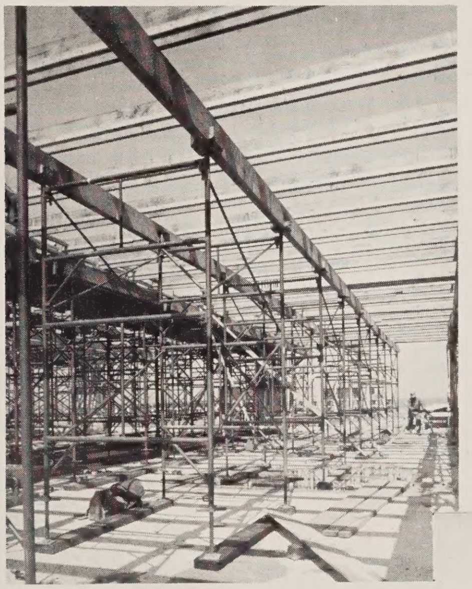
This photo taken between walls, shows how two runs of ADVANCE SHORING are tied together with FLEX-TI scaffold and standard putlogs.



Jet-age shoring and forming systems shape up a . . .

Poured-in-place building at precast cost

by **John C. Rehfield,** Managing Editor



Second floor ADVANCE SHORING with stringers and joists in place.

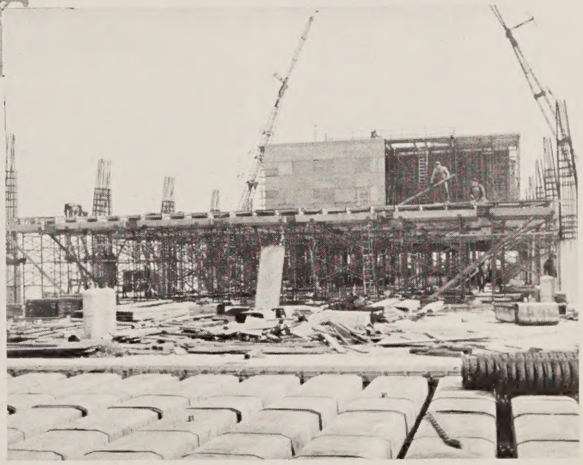


Photo shows ADVANCE SHORING in position on second floor hangar area of pan-type slab construction.

Reprinted from **CONSTRUCTION EQUIPMENT**
A Conover-Mast Publication

Jet-age shoring and forming systems shape up a . . .

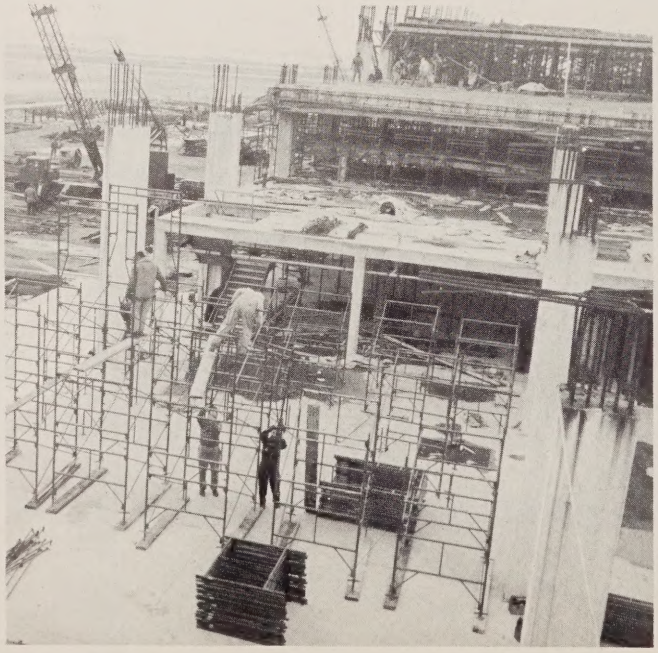
Poured-in-place building at precast cost

by John C. Rehfield

EARLY in the job, the top construction brass on the big TWA hangar at N. Y. International Airport sat down at a shirtsleeve conference. They had a tough nut to crack. Even though the job calls for a lot of tough shoring and forming—high slabs and rooftop walls, for instance—the frame is being poured in place at practically the cost of a precast structure.

What's the key to the low-cost construction? Just this: Wherever possible, shoring and forming is done with simple, easy-to-put-together, Erector-set-like systems. This knocks off two birds with one stone. It gets the carpenter down on the ground where he works at top efficiency. It also saves materials. Lumber waste is almost nil. Most timber on the job is in stock sizes. If special pieces are needed, they're cut in standard sizes so they can be used over and over again.

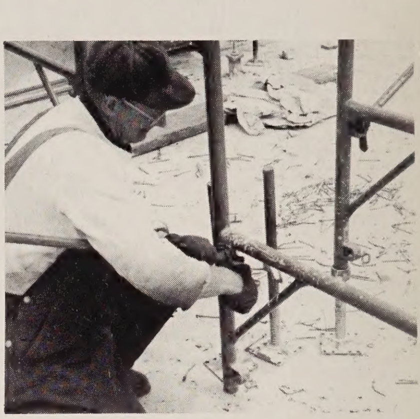
Grove, Shepherd, Wilson & Kruge, Inc., contractor on the job, put three basic ideas to work:



ADJACENT WALLS are poured at same time since forms support each other by means of cable cross ties. Ribbon pour of about 80 yd takes 6 hr to complete. P&H 555A truck crane handles lifting chores.

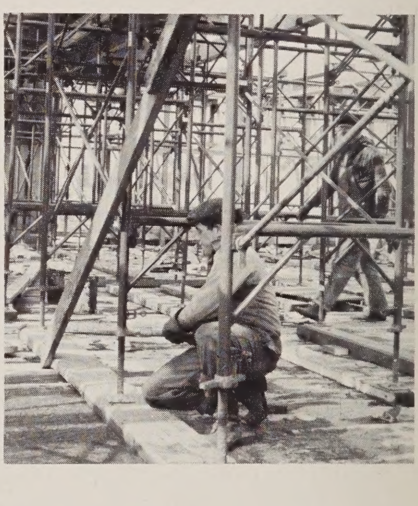
THREE LEVELS of shoring are in place near center of 821-ft-long hangar. Concrete slab at ground level gives workmen dry, clean area to work on. Stockpiled Advance scaffold panels stack neatly, take little room on floor.

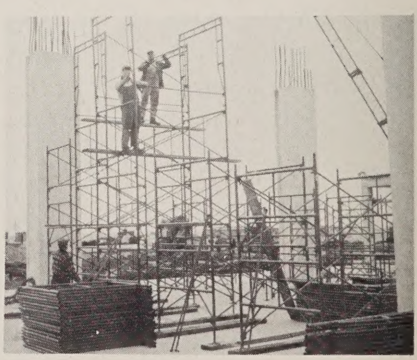
Shoring towers shoot up fast . . .



CROSS-BRACE locks into end panel by simple twist of cam lever. Spring-tensioned stack locks (at base of end panel) hold bases in place.

SHORT LENGTH OF PIPE slipped over end of screw-jack base gives extra leverage for fast height adjustment. Timber diagonal brace is needed to meet rigid N. Y. City shoring specs.





TWO-MAN TEAM puts up one 23-ft-high shoring tower every 10 min. They need no tools to put together Beaver-Advance tubular steel scaffold. Built-in devices lock parts together to build sturdy tower.

TIMBER STRINGERS stand on edge in channel-shaped shoring heads. Note that shoring towers also support planks used by workmen when they climb around at topside level.

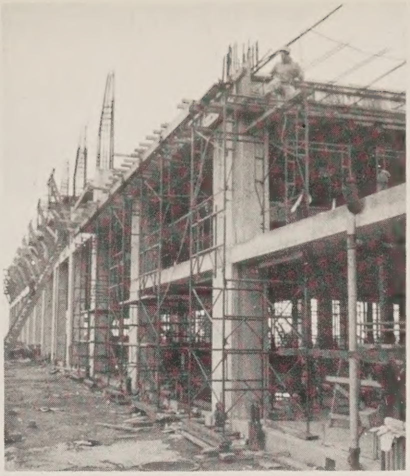
LONG-BOOM CRANE spots concrete anywhere on slab. Link-Belt Speeder Model HC-108 truck crane uses every bit of its 95-ft stick and 20-ft jib to swing Gar-Bro bottom-dump bucket across full 80-ft width of hangar.

- Tubular-steel scaffolding for shoring, bracing and work platforms
- Fast-stripping pans for slab pours
- Gang forms for towering anchor walls on top of the hangar

Here are the details on how these ideas went into action—and how they worked out.

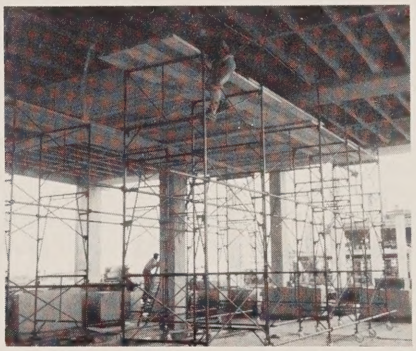
Towers of strength

The contractor played it smart from the start. Instead of waiting till the very end to put in the ground floor slab, he made this the first order of business. That solid concrete underfoot did double duty. It gave the men a level, dry pad to work on, and it saved many hours when it came to leveling of the tubular steel shoring.



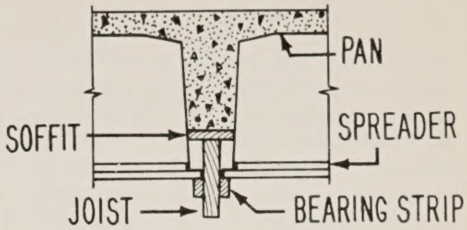
KNOTTY SHORING PROBLEM is easily licked with tubular steel scaffolds. Panels half-in and half-out of building support outrigger that braces forms for deep beam.

ROLLING PLATFORM made of Advance scaffold parts is magic carpet for tradesmen at work on overhead plumbing and duct work. Single lever on each caster locks both wheel and swivel to keep scaffold steady when it's spotted under work area.



When project manager A. R. Maxwell ticks off the time- and money-saving equipment on this job, the scaffold shoring stands high on the list. From the ground up it has taken the work and worry out of a tough shoring job.

Why worry? Well, New York's city fathers have really clamped down on the spacing and bracing of shoring systems. After collapse of formwork at the Coliseum, a tight shoring code was drafted. Now, shoring plans must be okayed by a professional engineer before erection begins. Then another P.E. checks out the shoring just before a pour to see that everything's strictly according to plan.



CROSS-SECTION shows elements of Gateway Slip-in pan system. Only nails needed are those that tack soffit strip to joist.

Maxwell turned the shoring headache over to experts at the Beaver-Advance Corp. They studied the blueprints and drew up detailed shoring suggestions. Their service didn't end there. B-A engineers figured out how many panels, braces, jacks, and heads would be needed to keep the forms one step ahead of the pouring crews. Then deliveries were scheduled so enough parts are always on hand when shoring crews go to work. Field engineers then check out the shores as they are set up for a pour.

Two men, no tools

Floor heights in the three-story 821x80-ft office and shop section of the hangar vary from 16 to 22 ft. Even on the high pours, Maxwell shores the forms with a series of 4x8-ft towers pieced together from standard Advance scaffold parts. The shoring towers fit like custom-mades no matter how high the slab is. Screw-jack bases give inch-by-inch height control.

Work crews fit the tower parts together without tools of any sort. The men team up in pairs. One man grabs an end panel and stands it upright on the floor. The other slips the end of a diagonal brace into a socket at the top of one side of the panel. A quick twist of a cam lever locks the brace in place. The team repeats the process with another end panel. Then they lock the braces into the sockets at the bottoms of each panel. Presto—a sturdy tower frame has taken shape.

Then the men sling a plank across the top of the completed frame and climb up to put together another lift on the tower. Each lift locks tightly into the one beneath by means of spring-tensioned steel pins that tie the end panels together. Four channel-shaped heads—to hold the form stringers—are locked in place to top out the tower.

Six towers an hour

Then the men climb down and stick screw-jack "shoes" on the four tower feet. They slip a 2x10 board under each side of the tower and nail it to the shoes. Now the team grabs the tower and skids it into place about 18 in. from its neighbors. From start to finish, the tower has taken about 10 min to build.

Panels form towers, towers line up in bays, and soon the desired pour area is covered by a forest of sturdy shoring. Then the crews go topside to join the towers with double or triple 2x10-in. timber stringers. The 2x10's stand on edge in the channels atop the towers. Scraps of wood wedge them tightly in place.

All the workers have to do now is put in a few diagonal braces and level the stringers. This takes only a few minutes. While one man sights-in the stringers, a worker below twists the scaffold screw bases to raise or lower each tower corner.

STRIPPING goes fast. After spreaders are knocked out, pans are pulled down without moving rest of centering. Then crews lower scaffold jacks so stringers slip out easily. Timber centering joists, with soffit strip attached, drop off as soon as stringers are removed.

Easy-in, easy-out pans

To form the slabs, Maxwell chose a pan system that's as flexible as the shoring beneath it. The Gateway Slip-in system isn't new. It has proved itself on many jobs over a long period of years. But it offered Maxwell several advantages that paved the way to big time and labor savings.

First of all, the pans are supported by simple, open centering that is easily set up atop the shoring stringers without nailing. Saves a lot of time—both in erecting and stripping.

Pans lap together to form spans of any length. There's no cutting or fitting, no large stock of odd-size pans cluttering up the work area.

As soon as the concrete gains its initial strength, the pans are stripped without moving the shoring. This gets fast reuse of the pans. The work crews can take their time knocking down the shoring.

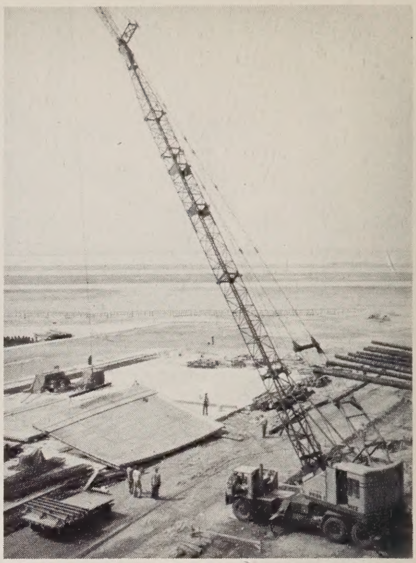
Support for the pans goes up as easily as those cabins you built with "Lincoln Logs" when you were a kid. It's the same principle, too. Standard pieces of lumber—cut on the ground and stockpiled at slab level—are laid one on top of the other. There's no nailing except for the soffit strip that seals the space between pans and locks the pans and centering in place.

Here's how the centering for the Gateway Slip-in system is built. The carpenters sit 2x10 timber joists on edge across the shoring. Narrow cleats (called bearing strips) nailed to each side of each joist make a "shelf" that supports cross-strips (spreaders) that hold up the forms. Since the bearing strips are nailed about 2 in. below the top edge of the joists, the pans "slip-in" between these timbers.

(Now you can see why it's a snap to strip the pans without removing the shoring. Knock out the spreaders from below, and the pans are easily dropped through between the joists.)

Pans "grow" fast

When the spreaders are in place, the pan-setting gang moves in.



GANG FORM rises from slab as spreader bar from P&H truck crane starts pick. Then crane swings around to face hangar. Complete form for one side of 27½x80-ft wall takes only ½ hr to erect.

REINFORCING RODS and door frame are set in place before erection of other side of wall form begins. Openings in form are pouring windows. Mix is chuted through windows by means of elephant trunks.

Gang forms assembled on the ground for a nickel a sq ft . . .

GROUND CREW joins Symons high-strength panels with double 2x6 wales to make up 34x27½-ft gang form for anchorage wall on top of hangar. Panels are assembled on ground at cost of only 5 cents a sq ft.

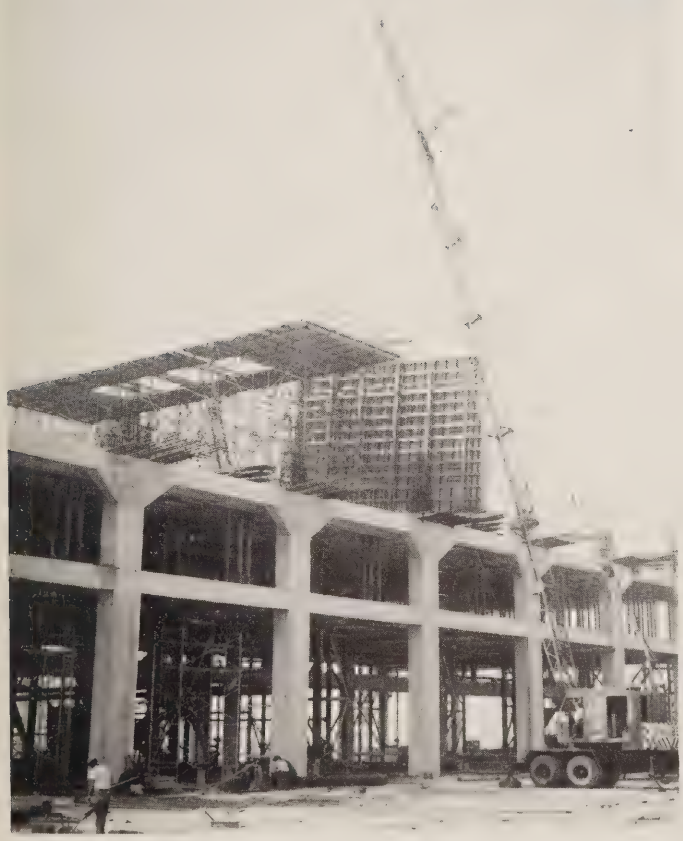
They set up an end cap at the end of each span. Then they carry in 3-ft-long open-end pan sections, and lay them atop the spreaders. No labor problem here, either. The pan sections are easily handled by one man.

Working from the ends to the center of each span, the gang laps the pans about 2 in. over each other. The center pan forms a tight cover for the final gap. Then the men nail the plywood soffit strips on the joists to close up the space between adjacent pans.

Remember that bearing strip we were talking about before? The one nailed about 2 in. from the top of the 2x10 joist? Well, that's a tricky piece of timber. It's used without alteration to form the shallow slab for the hangar roof.

How? The secret's in the double-duty joist. The bearing strip never has to be pulled off and renailed. When the men pass the joists upstairs to be used as centering for the roof, they simply flip each timber upside down. Now the bearing strip is 2 in. from the *bottom* of the joist—but 5 in. from the top. Thus the pan sits much deeper between the joists. The shallow slab is formed quickly and easily.

Maxwell rented about 35,000 sq ft of Gateway pans for the job. It's enough to keep the forming well ahead of the concrete gangs, even though there were times when



WORK PLATFORM of Advance scaffolding also supports wall forms till tie rods and cable braces are put in. Link-Belt Speeder truck crane inches gang form into position alongside scaffolding. When form is lined up, workman fastens turnbuckle rod that makes it easy to adjust plumb setting of wall.

pours were being set up at four different places in the building.

Gang forms for rooftop walls

A forming job that could have been a costly nightmare was turned into a sweet dream through use of gang forms. Maxwell had to set up forms for 27½-ft-high anchorage walls that straddle the full 80-ft roof width of the shop and office section. The mere thought of lifting all the lumber and hardware for forming of 28 of these walls was enough to worry even the most hardened construction stiff.

Maxwell never batted an eyelid. He called in the local field engineer of the Symons Clamp & Manufacturing Co. Together they figured out a forming set-up that could be assembled on the ground and then hoisted aloft and set in place in a matter of minutes instead of days. Costly? Not at all. Assembled on the ground the wall forms cost about a nickel a sq ft. Just a few cents more gets them in place on the roof ready for concrete.

The Symons high-strength panels are easily "ganged up" in ground-level assembly yards. The men fit together standard 4x8- and 4x6-ft high-strength panels to make up 34x27½-ft gang forms. Then especially made tapering panels are locked in place to form the sloping ends of the wall.

The finished assembly is flipped over on its back by a crane. The workmen mop on a coat of lacquer and two coats of form oil to protect the plywood face of the forms. This extra protection pays for itself. It saves lowering the forms to the ground again for cleaning each time a wall is stripped.

Maxwell has 5,000 sq ft of Symons forms available—enough for four complete walls plus a "starter set" for a fifth wall. By using high-early mix, a set of forms can be stripped and moved over to the next wall about three days after a pour. The move itself takes two cranes less than half a day.

It takes about 15 min for a crane to tilt a gang form off the slab and inch it into place on the roof. While the crane holds the big panel steady, workmen tie it to a framework of Advance scaffolding. (Double-duty scaffolding, that. It also serves as a work platform for the concrete gang when a pour is under way.)

When one side of the wall form is up, the lathers move in and set the reinforcing. Then a crane hoists up the forms for the other side of the 12-in.-thick wall, and the workmen join the sides with Williams ties.

The cranes are the key to the success of the gang form scheme. There are four P&H and Link-Belt Speeder long-boom rigs on the job. They split their time a dozen ways each day. Between hoisting re-bars, concrete for slab pours, nests of pans, stacks of scaffold parts, etc., there's never an idle moment.

Who's who on the job

Grove, Shepherd, Wilson, & Kruge has a crew of veteran construction men on the $15,000,000 job. Top man is A. R. Maxwell, project manager. Frank Blust is concrete super and D. Murdock is carpenter super.

Chief engineer for the Port of N. Y. Authority is John Kyle.

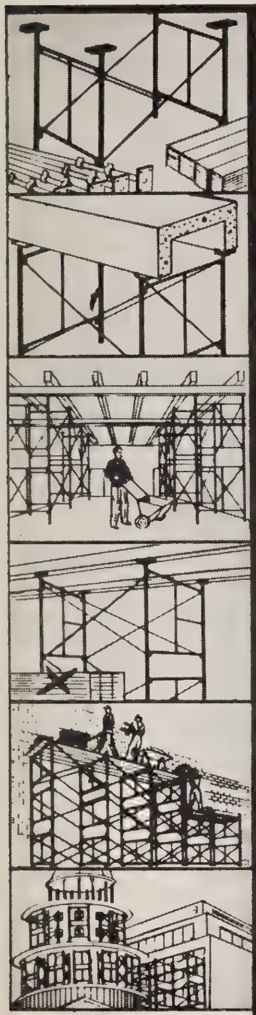
Sectional view of ADVANCE SHORING for first floor area with forms in place.

Closeup view showing second floor ADVANCE SHORING, work platforms and form supports for walls on top of the hangar. The form supports are placed in two sections. Note that the units are interlaced with FLEX-TI Scaffold so that the units may be moved intact with platforms in place.

Revolutionary Shoring Method SAVES up to 50% ON EVERY JOB

BEAVER ADVANCE

That's right —we said ***up to 50% savings on every job*** with the **ADVANCE** Scaffold method of shoring. We're selling a system—not a new-fangled product! Standard **ADVANCE** Scaffold equipment, plus Engineering Know-How, does the job.



HERE ARE THE FACTS!

❶ A single bay of **ADVANCE** Scaffold, which assembles ***without tools*** in about 10 minutes, replaces as many as 12 conventional wood or steel shores that take more than twice as long to erect.

❷ The scientific design and rugged construction of **ADVANCE** Scaffold assures ample strength to support ***all*** poured concrete . . . slabs up to 24″ thick— beams to 6′ in depth.

❸ Towers of **ADVANCE** Scaffold are self-supporting No additional lateral bracing is required and a large percentage of nailing can be eliminated. Thus, there is more freedom of movement on the job and maximum SAFETY at all times is assured.

❹ When shoring with **ADVANCE** Scaffold, there is ***no lumber loss*** and the hazard of fire is greatly reduced.

❺ The same **ADVANCE** Scaffold employed for shoring can also be used as a work stage for building forms, stripping, masonry work, and other building trades as needs arise.

❻ Because the basic design of **ADVANCE** Scaffold stresses flexibility, our ENGINEERED layouts can be efficiently used to shore virtually any type of concrete construction.

Want more FACTS?

Our engineers will gladly furnish comprehensive layouts and shoring estimates without cost or obligation to you.
Let us show how **ADVANCE** Scaffold can realize substantial savings for you on your next shoring job.

Quality Products Manufactured By

BEAVER-ADVANCE CORPORATION
ELLWOOD CITY, PA.

PRODUCTS DESIGNED BETTER AND MADE BETTER TO BETTER SERVE YOUR NEEDS

Look for the BEAVER-ADVANCE trademark. It's the sign of QUALITY, VALUE and SERVICE wherever scaffolding and materials hoisting equipment are concerned.

BEAVER ADVANCE

- **ADVANCE Scaffold**

—a full variety of panel styles, brace sizes and other accessories. Component parts interchangeable for conventional or stationary scaffolding, rolling towers and maintenance stands.

- **BEAVER Hoisting Towers**

—heavy duty type—3500 and 5000 lb. load-bearing capacities. Accessories include Chicago booms, concrete buckets, tower and floor hoppers. Height limits extend to 1200 ft.

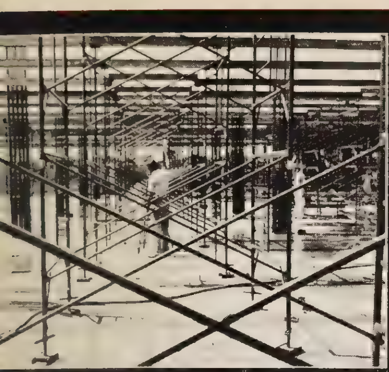
- **ADVANCE Hoisting Towers**

—for all hoisting requirements—1000 lb. to 5000 lb. load-bearing capacities—fewer parts than any other 4-post tower.

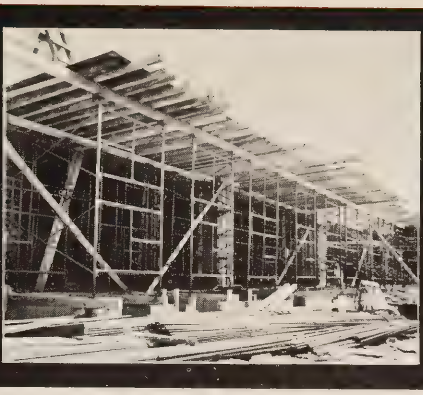
BEAVER-ADVANCE products are in use throughout every section of the country. They are capably sold, rented, installed and serviced by leading construction distributors, backed by factory-trained field representatives and home office personnel that is dedicated to better serving your every need.

For your next job, rent or buy your construction, maintenance and repair tools from:

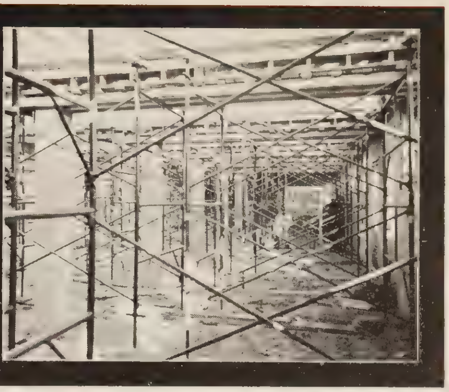
No. 65—Litho in U.S.A.—



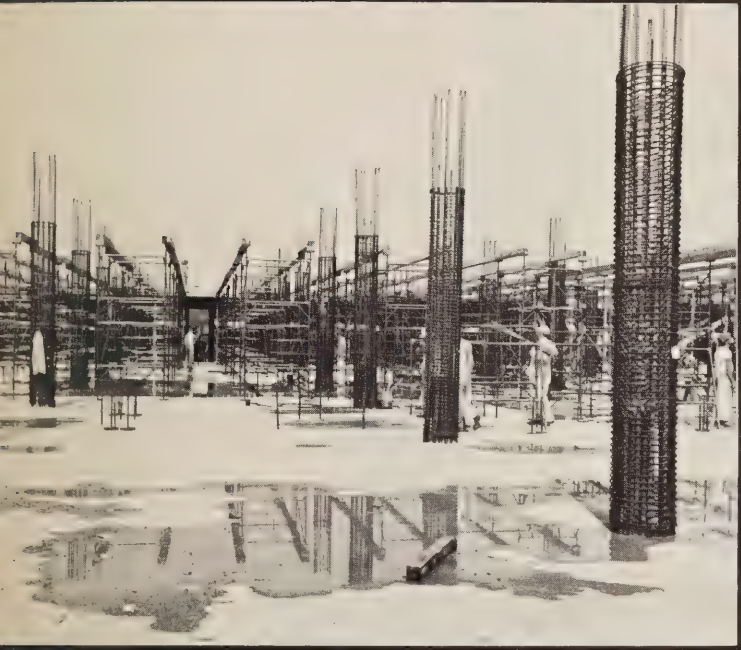
inal placement of ADVANCE Scaffold anels used for shoring concrete slab at uge Military Records Center, St. Louis, issouri.



The ADVANCE Scaffold shoring system was used for construction of the new Sears Roebuck & Co. retail store, Philadelphia, Pa.



Interstate Construction Co., Charlotte, N. C. uses ADVANCE shoring for school building construction.



Peter Kiewit Sons' Co. and Fruin-Colnon Contracting Co. used ADVANCE shoring with highly satisfactory results on this joint contracting venture at St. Louis, Mo.

Another view of the huge T.W.A. hangar construction at Kansas City, Mo. This shows ADVANCE shoring and form work in place under 4½ bays.

HERE ARE THE FACTS!

1. A single bay of ADVANCE Scaffold, which assembles without tools in less than 10 minutes, replaces as many as 12 conventional wood or steel shores that require more than twice as much time to erect.
2. The scientific design and rugged construction of ADVANCE Scaffold assures ample strength to support **all** poured concrete . . . slabs up to 24″ thickness—beams to 6′ in depth.
3. Towers of ADVANCE Scaffold are self-supporting. No additional lateral bracing is required and a large percentage of nailing can be eliminated. This permits more freedom of movement on the job and maximum SAFETY at all times.
4. When shoring with ADVANCE Scaffold there is **no lumber loss,** and the hazard of fire is greatly reduced.
5. The same ADVANCE Scaffold employed for shoring can also be used as a work stage for building forms, stripping, masonry work and other building trades as needs arise.
6. ADVANCE Roller Assemblies permit speedy transit of complete shoring units from one location to another, and entire pre-assembled shoring sections can be conveniently hoisted to other floor levels with tremendous savings in labor.
7. Because the basic design of ADVANCE Scaffold stresses flexibility, we can provide FACTORY-ENGINEERED layouts for virtually any type of concrete construction.
8. BEAVER-ADVANCE Engineering Service is second to none in the scaffold industry. Through the facilities of our modern Engineering Department, comprehensive layouts and shoring estimates are furnished without cost or obligation.

BEAVER ADVANCE

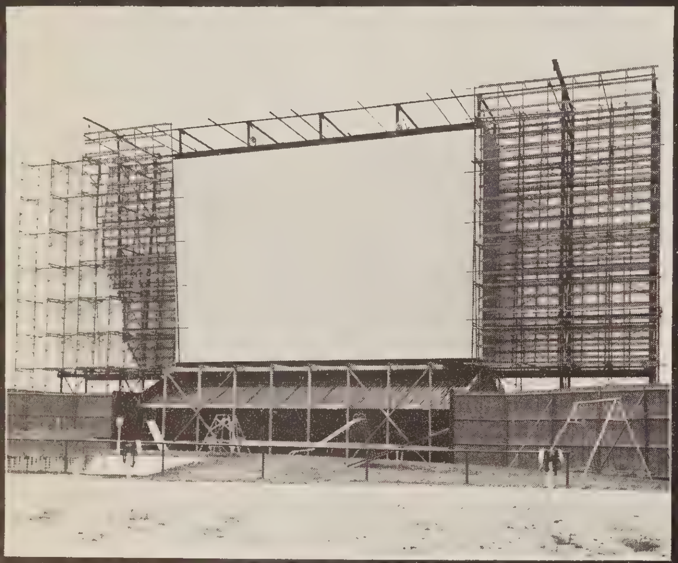
UNUSUAL applications for

Construction engineers emphasize the advantages of ADVANCE Scaffold for building maintenance and repair projects of all kinds. And—it's easy to see from the job photographs shown on these pages that no job is too tough for ADVANCE. Ski jumps, oil drilling rigs, and automobile tunnels are but a few of the unusual scaffolding problems solved by BEAVER-ADVANCE engineers.

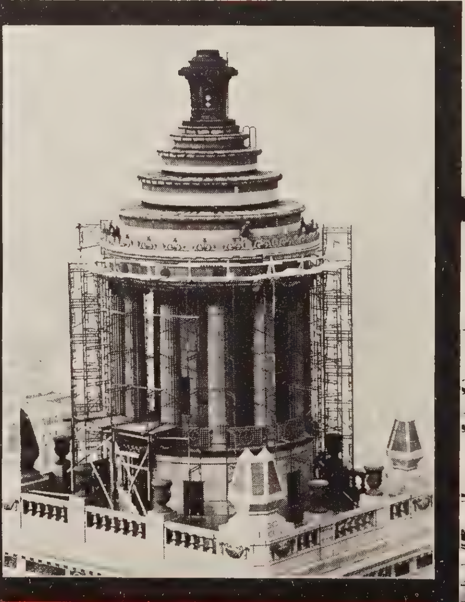
In most cases even the unusual problem can be solved with standard, interchangeable ADVANCE Scaffold panels and accessories. And, when needed, ADVANCE Flex-Ti Scaffold can handle

Ski jump superstructure is conventional ADVANCE Scaffold. Installation was by Riverside Sales, Brookfield, Illinois.

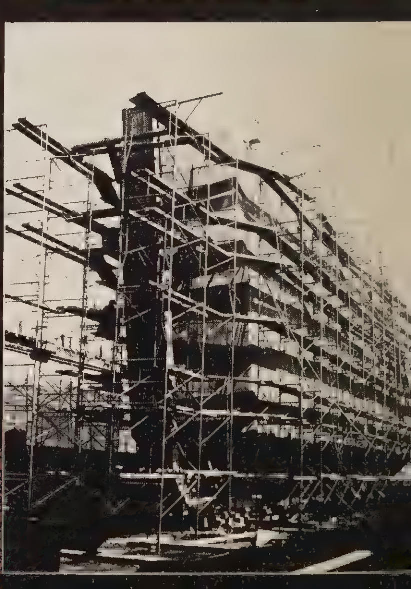
BEAVER ADVANCE



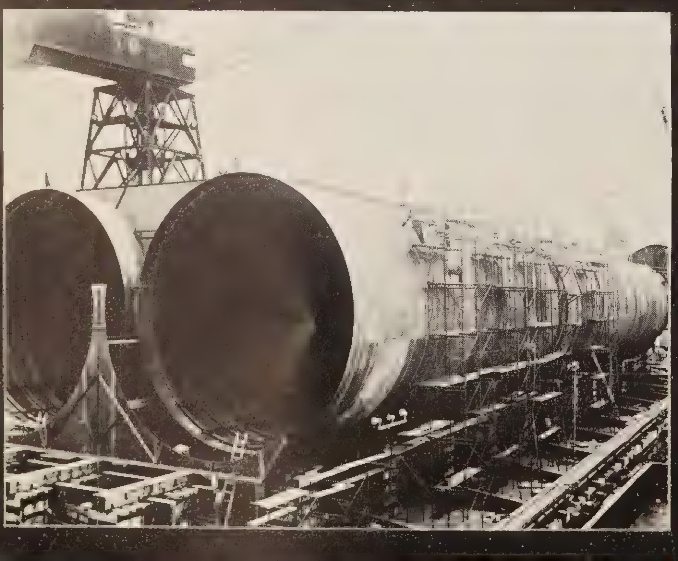
Widening of outdoor theater screen is accomplished with ADVANCE Scaffold staging; location, Houston, Texas.



Example of ADVANCE Scaffold as used for building cleaning and repair work on skyscraper at Houston, Texas.



ADVANCE Scaffold affords man hour savings of up to 75% on all types of marine construction and repair work.



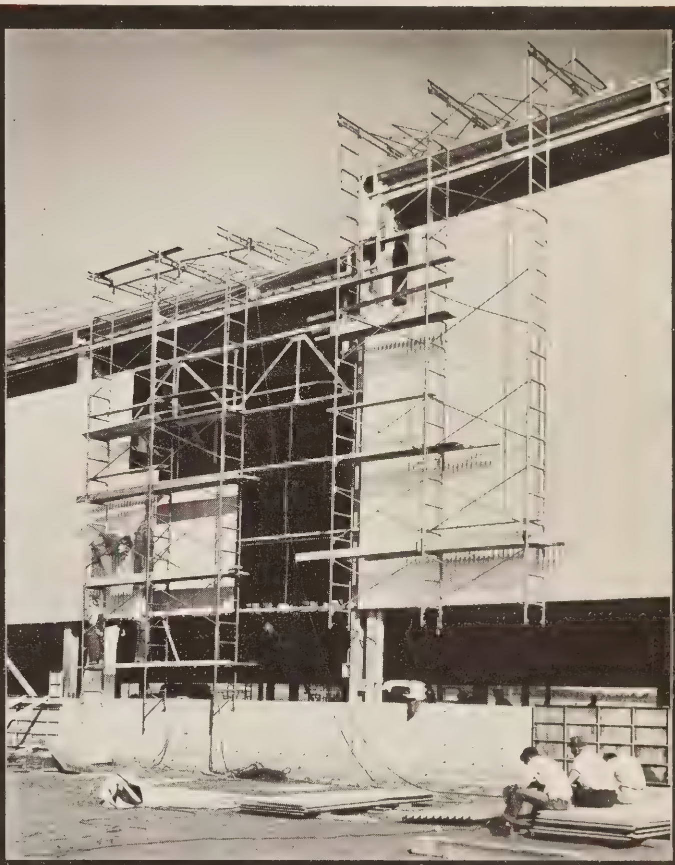
ADVANCE Scaffold stage for welders fabricating 300' long tunnel sections at Baltimore, Md.

ADVANCE scaffolding

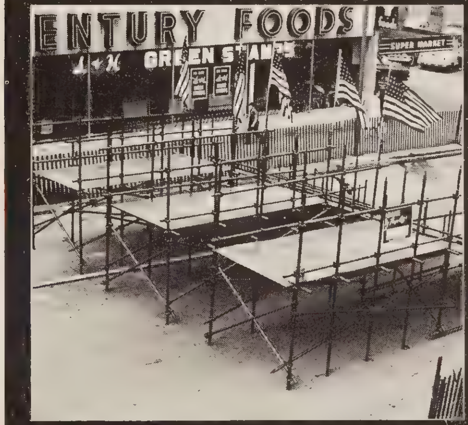
jobs with equal dispatch. Flex-Ti is a combination of interchangeable tubular members and clamps that are portable and completely adaptable to shapes of extreme irregularity. With but a few basic parts, unskilled workers using simple tools can erect structures that would otherwise require special material and a high degree of engineering skill.

Flex-Ti is completely interchangeable with conventional ADVANCE Scaffold panels and is frequently used in conjunction therewith.

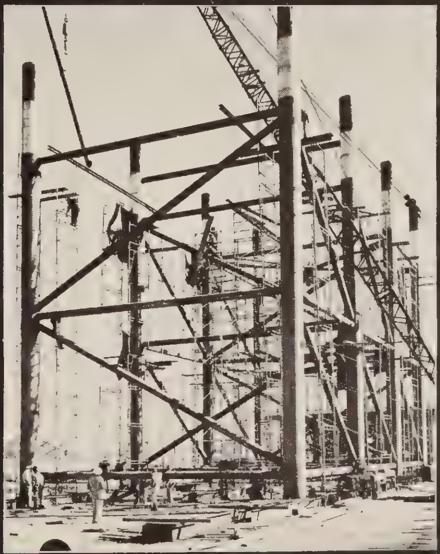
ADVANCE ladder panels are used as hanging stage for application of therma-board and aluminum siding; job site, Hickory, N. C.



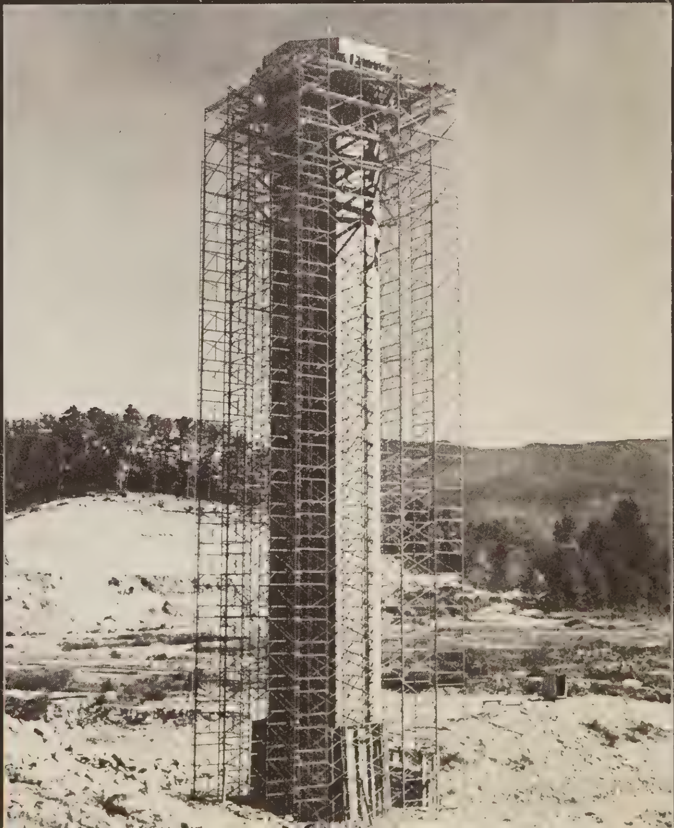
Example of adaptability of Flex-Ti Scaffold, starting ramp staging for Soap Box Derby trials, Western Pennsylvania location.



Standard ADVANCE Scaffold panels are shown here in use on construction of the base section of an oil drilling barge at Houston, Texas.

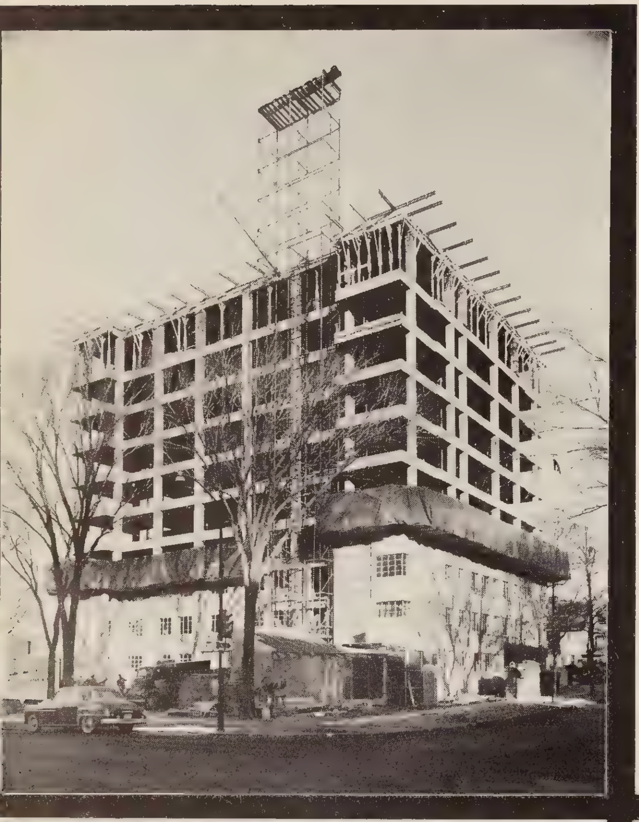


This huge rolling tower of ADVANCE Scaffold was used for placing acoustical tile on the ceiling of a Cleveland, Ohio synagogue.



Unusual application of ADVANCE masonry scaffold for construction of reservoir standpipe, Black Mountain, N. C.

MATERIAL HOISTING } TOWERS



In addition to its unexcelled line of tubular steel scaffold, BEAVER-ADVANCE is a leading manufacturer of material hoisting towers used in building construction. Towers are available in a wide range of sizes and styles to suit individual requirements.

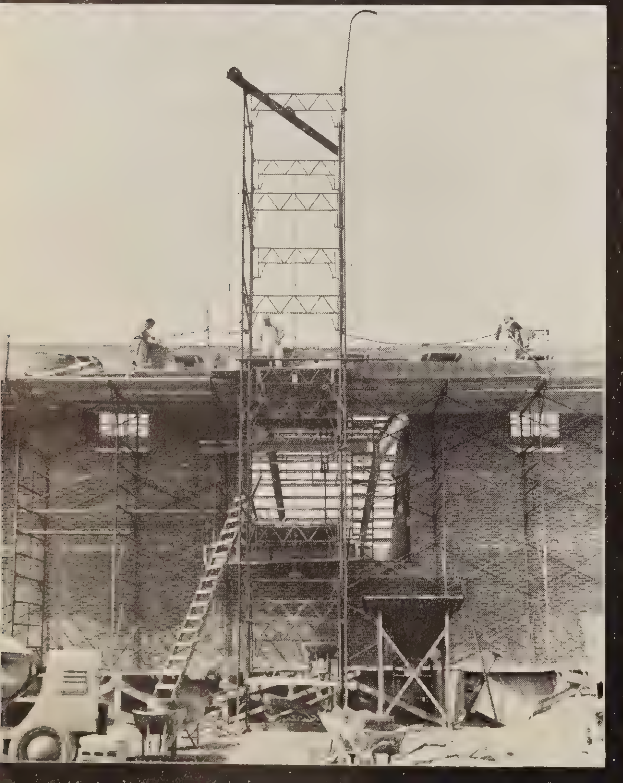
Heavy duty towers are of sturdy pipe construction employing a "through-bolt" system for assembly. They are built for live load capacities of 3500 to 5000 lbs. Accessories include Chicago booms, concrete buckets ranging from 18 to 35 cu. ft. and tower and floor hoppers with capacities from 28 to 108 cu. ft. Height limits extend to 1200 ft.

For greater economy on jobs where load capacities do not exceed 2500 lbs., towers erected from prefabricated frames of tubular steel are available. Compactness and simplicity are standout features. Each 6½ ft. section is composed of only 2 panels and 2 braces which assemble with self-contained Cam and Stack Locks, the same patented devices featured on ADVANCE Scaffold. This means fewer parts than any other 4-post tower and greatly reduces handling and erection time.

Double well No. 5000 Beaver Hoisting Tower being used in construction of Kansas City, Mo. apartment building.

Combined use of ADVANCE Scaffold and ADVANCE Model 1000 Hoisting Tower; masonry job, Skokie, Ill.

Beaver Hoisting Tower with accessory equipment in use for placement of concrete, hospital nurse's home, Jacksonville, Fla.



SAFETY RULES AND SPECIFICATION DATA

ADVANCE scaffold is designed and manufactured to exacting standards of safety. Nevertheless, the extra safety factors that are basic to the design of good scaffolding components cannot compensate for carelessness on the part of the user. We therefore call your attention to the following check list of rules which should be every-day practice in the erection and use of ADVANCE tubular steel scaffold.

Specification Data on ADVANCE Scaffold and Accessories is covered on the ensuing pages.

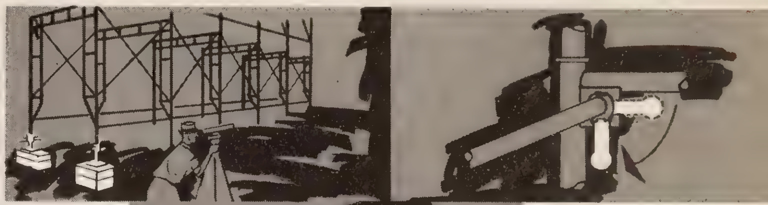
Provide sufficient under-pinning in addition to base plates on all scaffolding erected on soft ground.

Use adjustable bases to compensate for uneven ground levels.

Make certain that scaffolding is level and plumb throughout.

Do not force braces to fit. Level the scaffold until proper fit can be easily made.

Make certain that the Cam Lever on braces is in a "down" or locked position following attachment to panels.

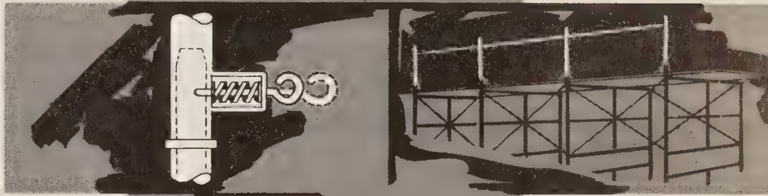


Use horizontal braces to prevent racking of the scaffold structure.

Be sure that Stack Locks at the base of each panel leg engage in the holes of the Stack Coupling of the panel underneath.

Anchor running scaffold every 30′ of length and 25′ of height.

Always use guard rails regardless of scaffold height.

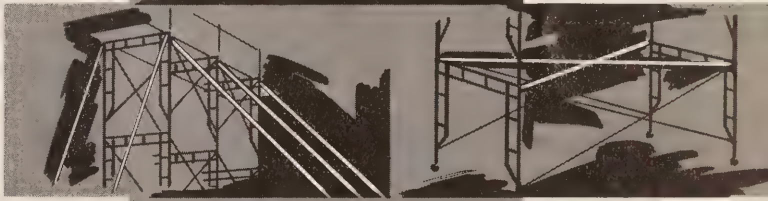


Do not climb on cross braces. Provide scaffold ladders if ladder panels are not being used.

Make certain the planking used on scaffold is of sound quality.

Do not tie putlogs together for spans of more than 21′.

Handle rolling towers with utmost care:
- Guy all towers where the height exceeds three times the minimum base dimensions.
- Keep all caster brakes locked when tower is not in motion.
- Have sufficient help when moving a rolling tower and watch clearances.
- Do not allow workmen to remain on the tower when it is in motion.
- When leg extensions are used, do not adjust screws to full extent.
- Use horizontal bracing on the bottom and top bays of rolling towers and at intermediate levels of 30′.



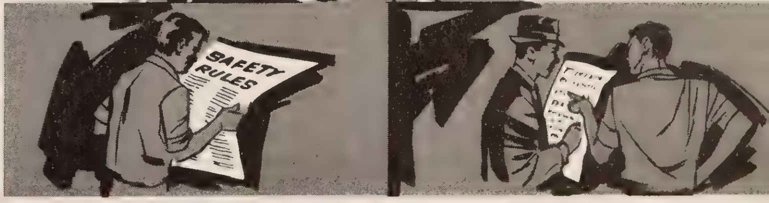
Check loads and stresses involved when using scaffolding for shoring of concrete slabs. Consult our Engineering Department when unusual conditions exist.

Keep all scaffolding equipment in good repair.

Damaged or deteriorated scaffolding equipment should never be used.

Familiarize yourself with your local safety codes and regulations and follow them carefully.

Avail yourself of our FREE Engineering Service for unusual jobs involving ADVANCE scaffolding.

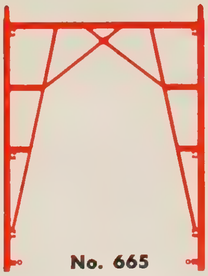


BEAVER ADVANCE

The Sign of QUALITY • VALUE • SERVICE wherever scaffolding or material hoisting towers is concerned.

SCAFFOLD PANELS

Panels in the 665 Series are available in four "walk-through" styles. They are designed for general use as running scaffold, or as the base section on rolling towers. Assembly is with No. 47X Brace or No. 7SB Straddle Brace to form 7′ section.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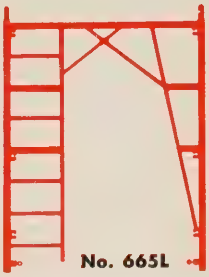
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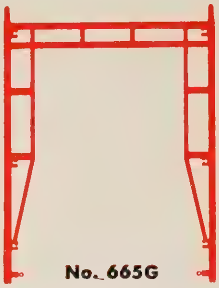
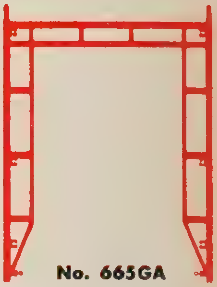
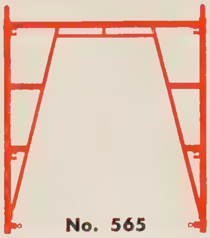

No. 665G


No. 665GA

Panels in the 565 and 605 Series are available in two "walk-through" styles. They are designed for general use as running scaffold, or as the base section on rolling towers. Assembly is with No. 47X Brace or No. 7SB Straddle Brace to form 7′ section.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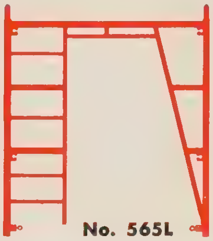
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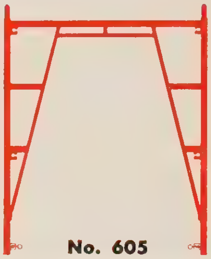
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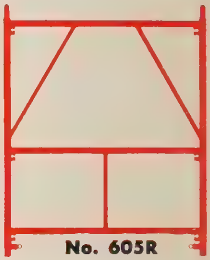
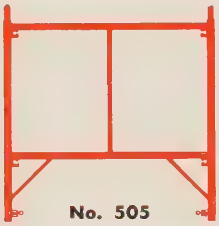

No. 605R

Panels in the 505 Series are available in four styles—Open, Ladder, Full Center Girt and Half Center Girt. They are designed primarily for use in masonry work—assemble with No. 47X Brace to form 7′ section.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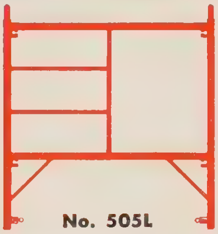
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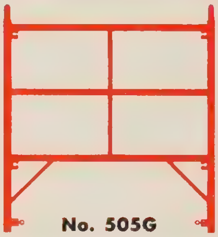
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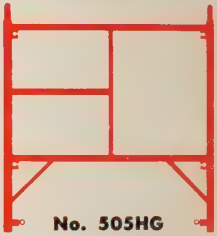
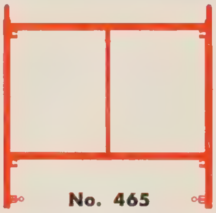

No. 505HG

Panels in the 465 Series are available in four styles—Open, Ladder, Full Center Girt and Half Center Girt. They are designed primarily for use in masonry work—assemble with No. 47X Brace to form 7′ section.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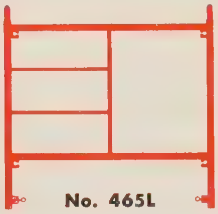
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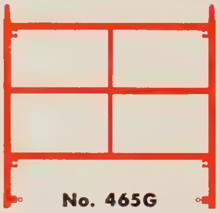
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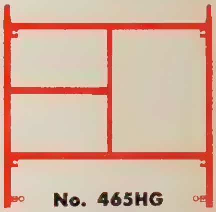
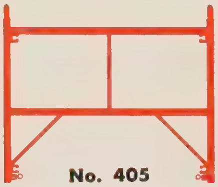

No. 465HG

Panels in the 405 Series are available in three styles, each suitable for all types of masonry work—permit placement of work stages at 2′ intervals—assemble with No. 47X Brace to form 7′ section.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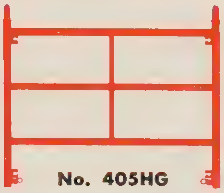
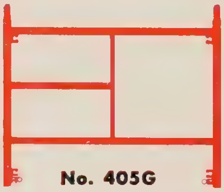
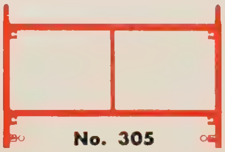
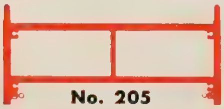

No. 405HG


No. 405G

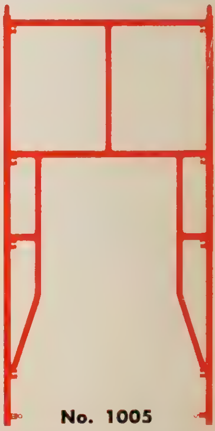
Panel No. 305 is used as an end guard rail, or as a 3′ load-bearing panel—assembles with No. 37X Brace to form 7′ section.


No. 305

Panel No. 205 is used as filler panel in running scaffold or as a top panel to meet critical height — assembles with No. 27X Brace to form 7′ section.

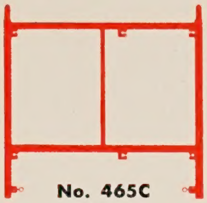

No. 205

Panel No. 1005 is commonly used where actual work is being performed above a 10′ height, and when maximum head clearance, below, is required. Assembles with No. 47X Brace to form 7′ section.

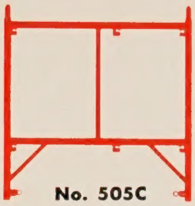

No. 1005

SCAFFOLD PANELS

Panel Nos. 465C and 505C are designed to give complete bracing to scaffold sections, and a platform area around three sides of a chimney. Assembly is with No. 47X Brace to form 7′ section.

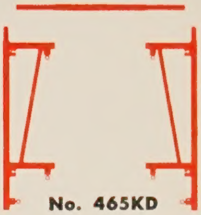


No. 465C



No. 505C

No. 465KD is a "knock-down" panel which will pass through an opening 2″ x 1′4″. Assembly is with No. 47X Brace to form 7′ section.



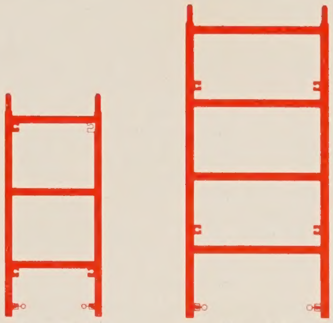
No. 465KD

2′ & 3′ PANELS

Panels in the 462 and 462L Series are 2′ wide and vary in height from 3′ to 6½′. They are commonly referred to as Ladder Panels and are particularly suitable for use on interior maintenance work.

Panels in the 663 Series are 3′ wide and vary in height from 3′ to 6½′. They are primarily for use as interior staging where narrow passageways prevent use of standard width scaffold.

Assembly of 2′ & 3′ Panels is with No. 47X Braces to form 7′ sections.

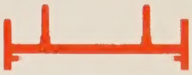


No. 462 No. 663

2′ & 3′ PANELS

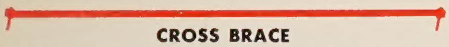
PANEL BASE

Recommended for use with Ladder Panels of 2′ & 3′ widths, where working heights are in excess of 10′. Casters, Foot Plates and Adjustable Bases attach by means of conventional Stack Locks.



PANEL BRACE

BRACES AND ACCESSORIES

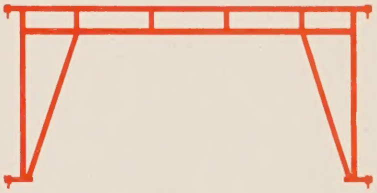


CROSS BRACE

All Cross Braces are fabricated with self-contained Cam Locks at brace ends for speedy panel attachment. Braces in the 2-X Series are used with 2′ panels; 3-X Series for 3′ panels; 4-X Series for panels 4′ or greater in height.

HORIZONTAL BRACE

Horizontal Braces are placed diagonally across bays of scaffold. They are used as additional bracing to add rigidity to rolling towers.

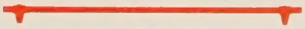


STRADDLE BRACE

Straddle Braces are for use with all panels 4′ or greater in height, when fixed equipment must be bridged with either stationary scaffold or rolling towers.

STRINGER BRACE

Stringer Braces are for use as guard rails, or where cross bracing is not practical.



GUARD RAIL

Guard Rail No. 5E attaches to No. 36 Guard Post to form an End Guard Rail where standard 5′ wide panels are used.

No. 55

No. 55S

No. 55U

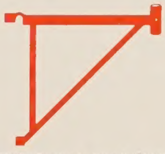
Foot Plates in the 55 Series are designed to meet varying surface conditions. They telescope into the tubular legs of panels and lock to the base of each column. No. 55 is for use on level surfaces; No. 55S for sloping surfaces; No. 55U for use on panel girts to stack narrow width panels atop standard panels.

CASTERS

Casters are available in two brake-type styles, with wheels of rubber, steel and plastic—5″, 6″, or 8″ diameter.

No. 36

Guard Rail Post No. 36 is for use with standard panels and assembles with Stringer Brace or Guard Rail.



EXTENSION BRACKET

Extension Brackets are used to extend decking area in length or width. There are four models. No. 20E is 1′8″ wide; No. 24E, 2′ wide; No. 30E, 2′6″ wide; No. 48E, 4′ wide.

No. 9A

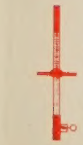
Stack Adapter No. 9A provides a solid connection between ADVANCE panels and panels made of 1⅝″ O.D. tube.

No. 9

Stack Coupling No. 9 is an integral part of each panel, and is easily removed through operation of Stack Coupling Release.

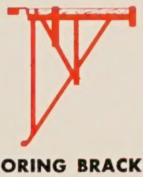
ADJUSTABLE BASE

The Adjustable Base is used for leveling scaffold panels and to obtain a limited additional height. There are two models: No. 15JC affords a 17″ height adjustment; No. 6JC a 6″ height adjustment. When shoring concrete forms, unit inverts in top of panel legs and Shoring Heads of the JC Series are attached.



ADJUSTABLE LEG

Adjustable Legs are used between two lifts of panels to permit even leveling of scaffold or adjustment of working levels. There are two models: No. 15JS affords a 17″ height adjustment; No. 6JS, a 6″ height adjustment.



SHORING BRACKET

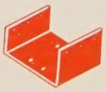
Shoring Brackets provide an extended support area to towers of ADVANCE Scaffold used for shoring concrete slabs. There are two models: No. 30ER is 2′6″ wide; No. 48ER, 4′ wide.

No. R11

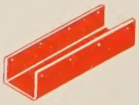
I-Beam Clamp No. R11 is used to hold 8″ Jr. I-Beams in place in Shoring Heads, when beams are used instead of lumber stringers.

No. JC1

No. JC2



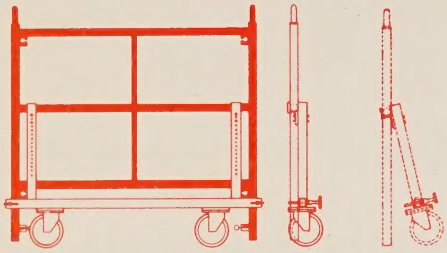
No. JC3



No. JC5

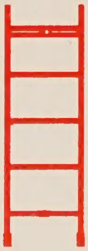
Shoring Heads in the JC Series provide a saddle for various sizes of lumber used for stringers in concrete form work. They bolt to Adjustable Bases, Foot Plates or the head plates of ADVANCE Adjustable Post Shores.

ACCESSORIES



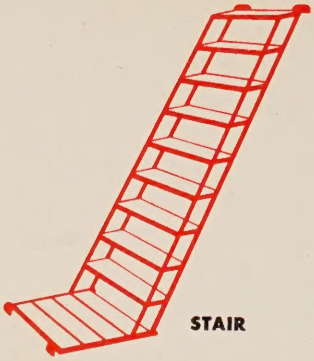
ROLLER ASSEMBLY

The Roller Assembly is a hand-operated unit used for relocating scaffold towers. It is particularly suitable for moving towers and form work on shoring jobs, eliminating dismantling of scaffold when relocating to successive pour areas. Two models are available: No. DL6, load capacity 700 lbs.; No. DL7, load capacity 1000 lbs.



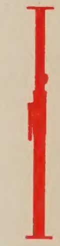
LADDER

Ladders are for use with Panels from 3′ to 6½′ in height. A bracket, fixed to the center of the top rung, affords a safe means of self-attachment to Panel girts.



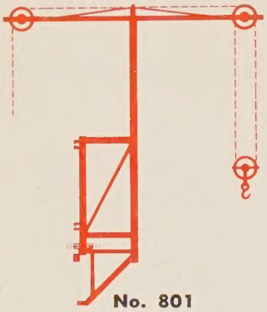
STAIR

The **ADVANCE** Stair is designed to fit a standard 7′ scaffold section and is available in three models: No. S46 for use with 4½′ Panels; No. S50 for 5′ Panels; No. S66 for 6½′ Panels. Unit provides a continuous internal stairway from ground level to the top of scaffold.



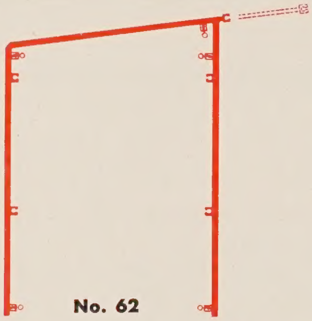
ADJUSTABLE POST SHORE

ADVANCE Adjustable Post Shore consists of a base and adjustable post with head plate. Three models are available: No. 6-11 provides height adjustment from 6′ to 11′; No. 8-13 from 8′ to 13′; No. 10-15 from 10½′ to 15½′. Head Plate accommodates Shoring Head Nos. JC2, 3 and 5.



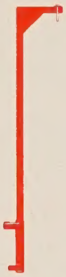
No. 801

Boom Hoist No. 801 is hand-operated with a lifting capacity of 100 lbs. It mounts on the Stack Coupling of any panel.



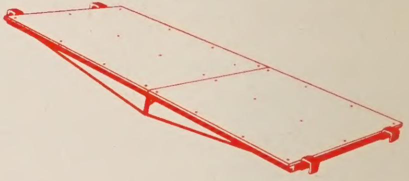
No. 62

Canopy Support No. 62 provides framework for a shelter area.



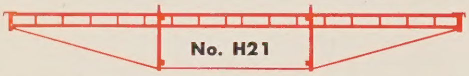
No. 802

Pulley Bracket No. 802 has a lifting capacity of 75 lbs. It clamps to the leg of standard scaffold panels.



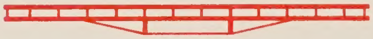
PLATFORM

This accessory consists of a ⅜″ plywood deck that's bolted to a heavy gauge steel frame. It's positioned by means of end hooks which fit the girt of any panel. Platforms are available in 7′, 8′ & 10′ lengths; 2′ & 2½′ widths.



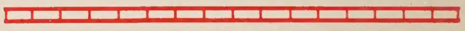
No. H21

Putlog No. H21 is for heavy duty use and will support loads up to 50 lbs. PSF of stage on the full length. No. 7 Bracket is used with the unit when intermediate length is required. Available for spans of 14′ and 21′.



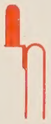
No. M16

Putlog No. M16 is for medium duty use and will support loads up to 35 lbs. PSF of stage on the full length. Available for spans of 16′ and 22′.



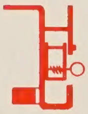
No. 20

Putlog No. 20 is for light duty use and will support loads up to 20 lbs. PSF of stage on the full length. Available in 12′, 14′, 16′, 18′ and 20′ lengths.



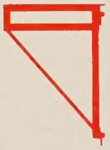
No. 10F

Putlog Footing No. 10F provides footing for panels at any point on all Putlogs.



No. 7

Putlog Bracket No. 7 is of double-support design to assure safe attachment of Putlog to scaffold.

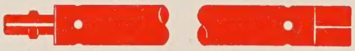


No. 4J

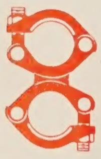
Straddle Bracket No. 4J is used with No. 20 Putlog where clear floor space does not permit use of scaffold towers. Putlog slides through Bracket to afford any desired span; position locks.

FLEX-TI SCAFFOLD

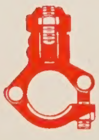
Flex-Ti Scaffold is a combination of interchangeable tubular members and clamps that are portable and completely adaptable to shapes of extreme irregularity. Pipe Members are 1.9″ O.D. available in standard lengths of 6′, 8′, 10′ and 13′. Clamp No. PS 1½ is "Swivel-type" used for attachment of diagonal bracing. No. PF 1½ is a fixed right angle Clamp used for joining horizontal to vertical members. Base Plate No. B 1½ is for attachment to bottom of vertical columns.



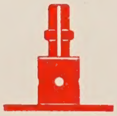
PIPE MEMBER



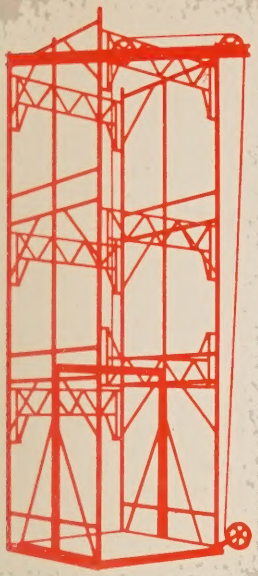
No. PS1 ½

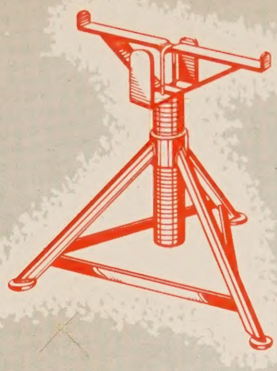


No. PF1 ½



No. B1 ½

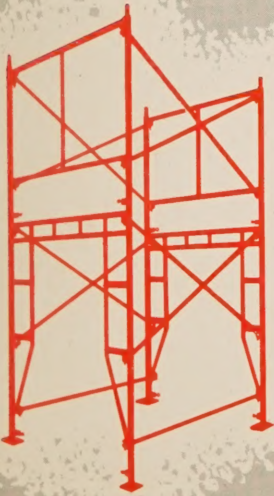


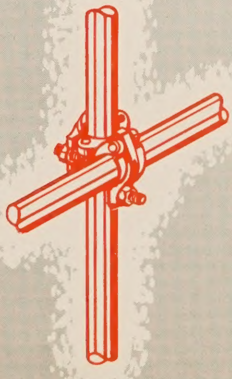


Products Designed Better and Made Better To Better Serve Your Needs

BEAVER-ADVANCE CORPORATION has been engaged in the manufacture of building construction and maintenance equipment since the late 1940's. From a competitive standpoint it would have been advantageous at the outset to produce and market a full line of scaffolding and hoisting equipment. But—to have done so—would have meant the imitation of existing brands without knowledge of deficiencies, and on-the-job use with little or no performance tests and field experience. Instead, development of our products has been by careful plan, involving scientific design, selection of the highest quality of component materials, skilled workmanship, exacting testing procedures, installation engineering analysis and performance trials. That our judgement has been sound is born out by the unprecedented demand for **BEAVER-ADVANCE** scaffolding, accessories and materials hoisting towers and . . . in but a few years . . . we have become one of the largest producers in the industry.

BEAVER-ADVANCE products are in use throughout every section of the country. They are capably sold, rented, installed and serviced by leading construction and industrial equipment distributors—backed by factory-trained field representatives and a home office force that is dedicated to better serving your every need.





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ADVANCE

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